## CLAIMS LISTING

1.(currently amended) A radiation curable ink composition ~~comprising at least one initiator and at least one polyhedral oligomeric silsesquioxane (POSS) represented by the following empirical formula $[R(SiO_{1.5})]_n$ wherein n=4,6,8,10,12,14,16 and larger and each R is independently hydrogen, an inorganic group, an alkyl group, an alkylene group, an aryl group, an arylene group, or non-heterocyclic group-containing organo-functional derivatives of alkyl, alkylene, aryl or arylene groups wherein said polyhedral oligomeric silsesquioxane comprises at least one R-group comprising a curable functional group; and~~ according to claim 59 wherein said radiation curable ink composition contains at least one colorant in a concentration between 0.5 and 20 percent by weight based on the total weight of said radiation curable ink composition and each colorant is a pigment.

2-4.(cancelled)

5.(currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said initiator is a photoinitiator.

6. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said composition further contains an initiator synergist.

7-9. (cancelled)

10. (previously presented) Radiation curable ink composition according to claim 1, wherein said colorant is an inorganic pigment.

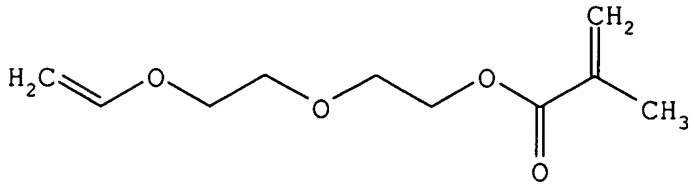
11. (previously presented) Radiation curable ink composition according to claim 1, wherein said colorant is a dispersed pigment or a solid solution of a pigment.

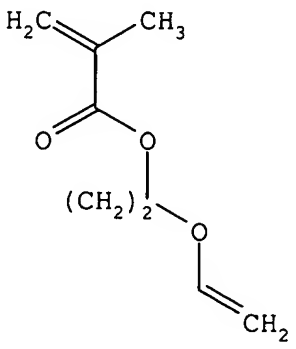
12. (previously presented) Radiation curable ink composition according to claim 1, wherein said pigment is selected from the group consisting of Pigment Yellow 1, 3, 128, 109, 93, 17, 14, 10, 12, 13, 83, 65, 75, 74, 73, 138, 139, 154, 151, 180, 185; Pigment Red 122, 22, 23, 17, 210, 170, 188, 185, 146, 144, 176, 57:1, 184, 202, 206, 207; Pigment Blue 15:3, Pigment Blue 15:2, Pigment Blue 15:1, Pigment Blue 15:4, Pigment Blue 15:6, Pigment Blue 16, and carbon black.

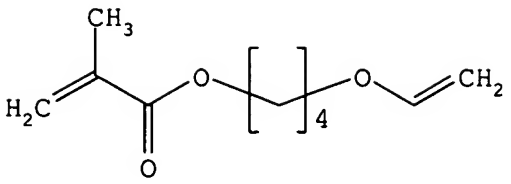
13. (previously presented) A radiation curable ink composition comprising at least one initiator and at least one polyhedral oligomeric silsesquioxane (POSS) represented by the following empirical formula $[R(SiO_{1.5})]_n$ wherein n=4,6,8,10,12,14,16 and larger and each R is independently

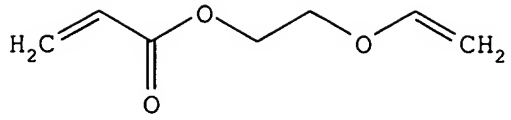
hydrogen, an inorganic group, an alkyl group, an alkylene group, an aryl group, an arylene group, or non-heterocyclic group-containing organo-functional derivatives of alkyl, alkylene, aryl or arylene groups wherein said radiation curable ink composition contains at least one colorant in a concentration between 0.5 and 20 percent by weight based on the total weight of said radiation curable ink composition wherein said composition further comprises at least one photopolymerizable compound selected from the group consisting of vinylether methacrylates and vinylether acrylates.

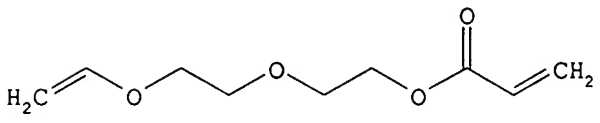
14.(original) Radiation curable ink composition according to claim 13, wherein said vinylether methacrylate or vinylether acrylate is selected from group consisting of:



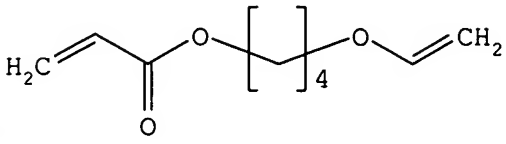








and



15. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said ink composition further contains a second photopolymerizable monomer, oligomer or prepolymer.

16. (original) Radiation curable ink composition according to claim 15, wherein said second monomer is selected from the group consisting of amino modified polyether acrylates, urethane acrylates, polyester acrylates, polyether acrylates, and epoxy acrylates.

17. (cancelled)

18. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said composition further contains water and/or at least one organic solvent.

19. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said composition

further comprises at least one conducting or semiconducting polymer.

20. (original) Radiation curable ink composition according to claim 19, wherein said at least one conducting or semiconducting polymer is selected from the group consisting of substituted polyanilines, unsubstituted polyanilines, polypyrroles, substituted polythiophenes, unsubstituted polythiophenes, substituted poly(phenylenevinylenes, unsubstituted poly(phenylenevinylenes, and polyfluorenes.

21. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said composition further comprises at least one antioxidant.

22. (currently amended) A radiation curable ink composition according to claim 59 ~~claim 1~~ wherein said composition further comprises a dendrimer.

23. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein the viscosity of said ink composition is between 1 and 100 mPa.s at 25 °C.

24. (currently amended) Radiation curable ink composition according to claim 59 ~~claim 1~~, wherein said radiation curable ink composition is a radiation curable ink-jet ink composition.

25. (cancelled)

26. (previously presented) Process according to claim 42, wherein said radiation curing is performed by means of at least one ultra-violet source and/or at least one electron beam source.

27. (previously presented) Process according to claim 42, wherein said curing is a free radical polymerization process.

28. (previously presented) Process according to claim 42, wherein said curing is a cationic polymerization process.

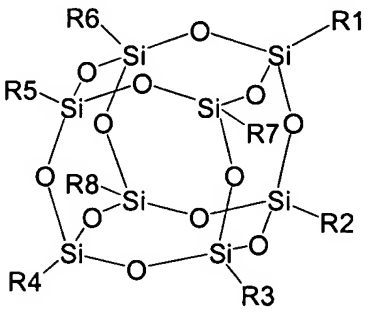
29. (previously presented) Process according to claim 42, wherein said ink-jet receiving material is selected from the group consisting of paper, coated paper, polyolefin coated paper, cardboard, wood, composite boards, plastic, coated plastic, canvas, textile, metal, glasses, plant fibre products, leather, magnetic materials and ceramics, or supports provided with an ink-accepting layer.

30. (original) Process according to claim 29, wherein said ink accepting layer contains a microporous pigment or a polymer blend.

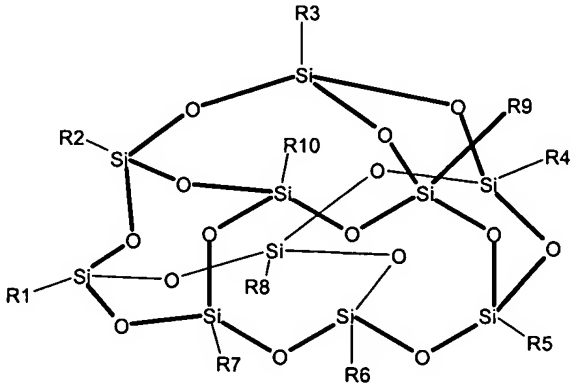
31. (previously presented) Process according to claim 42, wherein said polyhedral silsesquioxane comprises at least one R-group comprising a curable functional group.

32. (previously presented) Process according to claim 31, wherein said curable functional group is selected from the group consisting of epoxide, aziridine, acrylate, methacrylate, acrylamide, methacrylamide, olefinic and styryl groups.

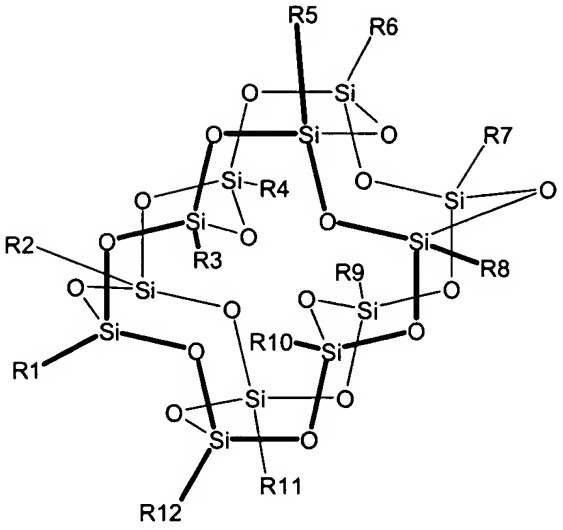
33. (previously presented) Process according to claim 31, wherein said curable polyhedral oligomeric silsesquioxane (POSS) has a specific cage structure as represented by formulae I to III or partial cage structures as represented by formula IV:



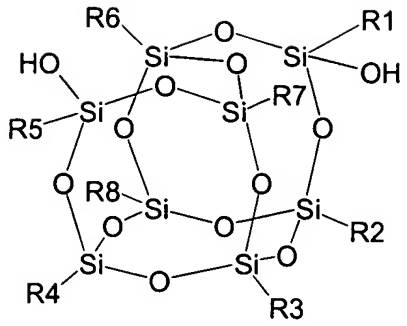

I




II




III




IV

wherein R1 to R12 represents hydrogen, inorganic or organic substituents and at least one of R1-R12 groups comprises a curable functional group.

34. (previously presented) Process according to claim 42, wherein said initiator is a photoinitiator.

35. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further contains an initiator synergist.

36. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further contains at least one colorant.

37. (previously presented) Process according to claim 36, wherein said colorant is a dye.

38. (previously presented) Process according to claim 36, wherein said colorant is a pigment.

39. (previously presented) Process according to claim 36, wherein said colorant is an inorganic pigment.

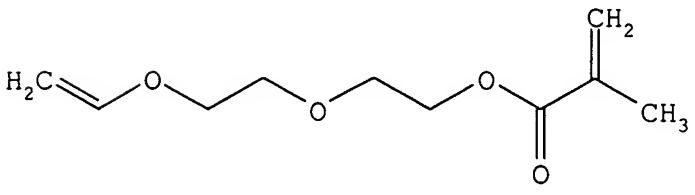
40. (previously presented) Process according to claim 36, wherein said colorant is a dispersed pigment or a solid solution of a pigment.

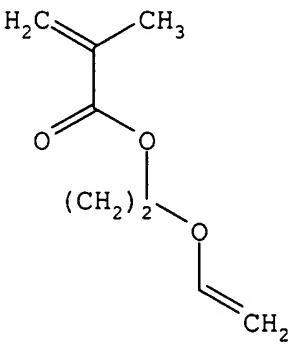
41. (previously presented) Process according to claim 38, wherein said pigment is selected from the group consisting of Pigment Yellow 1, 3, 128, 109, 93, 17, 14, 10, 12, 13, 83, 65, 75, 74, 73, 138, 139, 154, 151, 180, 185; Pigment Red 122, 22, 23, 17, 210, 170, 188, 185, 146, 144, 176, 57:1, 184, 202, 206, 207; Pigment Blue 15:3, Pigment Blue 15:2, Pigment Blue 15:1, Pigment Blue 15:4, Pigment Blue 15:6, Pigment Blue 16, and carbon black.

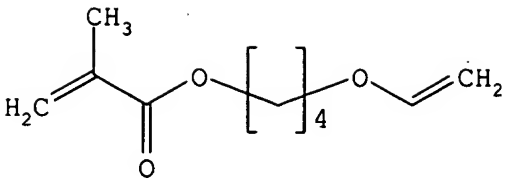
42. (previously presented) A process for obtaining a colourless, monochrome or multicolour ink jet image comprising the steps of jetting one or more streams of ink droplets having a radiation curable ink composition onto an ink-jet ink receiver material, and subjecting the obtained image to radiation curing, wherein said radiation curable ink composition comprises at least one initiator and at least one polyhedral oligomeric silsesquioxane (POSS)

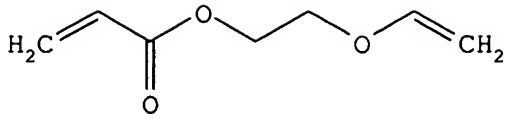
represented by the following empirical formula $[R(SiO_{1.5})]_n$ wherein n=4,6,8,10,12,14,16 and larger and each R is independently hydrogen, an inorganic group, an alkyl group, an alkylene group, an aryl group, an arylene group, or non-heterocyclic group-containing organo-functional derivatives of alkyl, alkylene, aryl or arylene groups wherein said radiation curable ink composition further comprises at least one photopolymerizable compound selected from the group consisting of vinylether methacrylates and vinylether acrylates.

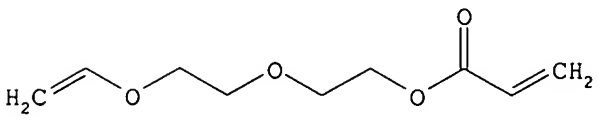
43. (previously presented) Process according to claim 42, wherein said vinylether methacrylate or vinylether acrylate is selected from the group consisting of:



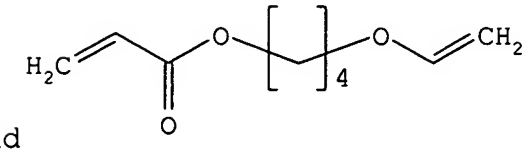








and



44. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further contains a second photopolymerizable monomer, oligomer or prepolymer.

45. (previously presented) Process according to claim 44, wherein said second monomer is selected from the group consisting of amino modified polyether acrylates, urethane acryaltes, polyester acrylates, polyether acrylates, and epoxy acrylates.

46. (cancelled)

47. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further contains water and/or at least one organic solvent.

48. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further

comprises at least one conducting or semiconducting polymer.

49. (previously presented) Process according to claim 48, wherein said at least one conducting or semiconducting polymer is selected from the group consisting of substituted polyanilines, unsubstituted polyanilines, polyprroles, substituted polythiophenes, unsubstituted polythiophenes, substituted poly(phenylenevinylenes), unsubstituted poly(phenylenevinylenes), and polyfluorenes.

50. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further comprises at least one antioxidant.

51. (previously presented) Process according to claim 42, wherein said radiation curable ink composition further comprises a dendrimer.

52. (previously presented) Process according to claim 42, wherein the viscosity of said radiation curable ink composition is between 1 and 100 mPa.s at 25°C.

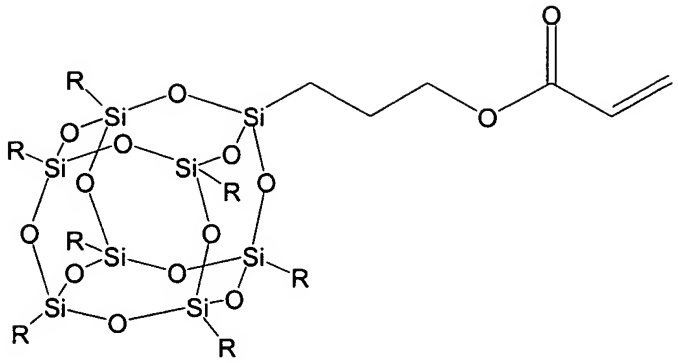
53. (previously presented) Process according to claim 42, wherein said radiation curable ink composition is a radiation curable ink-jet ink composition.

54. (cancelled)

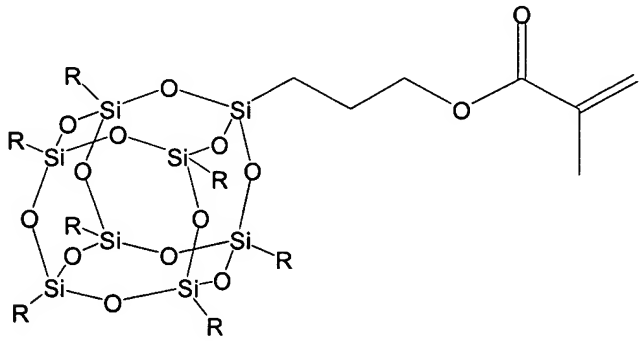
55. (previously presented) A radiation curable ink composition comprising at least one initiator and at least one polyhedral oligomeric silsesquioxane (POSS) represented by the following empirical formula $[R(SiO_{1.5})]_n$ wherein n is 4, 6, 8, 10, 12, 14, 16 and larger and each R is independently hydrogen, an inorganic group, an alkyl group, an alkylene group, an aryl group, an arylene group, or non-heterocyclic group-containing organo-functional derivatives of alkyl, alkylene, aryl or arylene group,
wherein said composition further comprises at least one photopolymerizable compound selected from the group consisting of vinylether methacrylates and vinylether acrylates.

56-58. (cancelled)

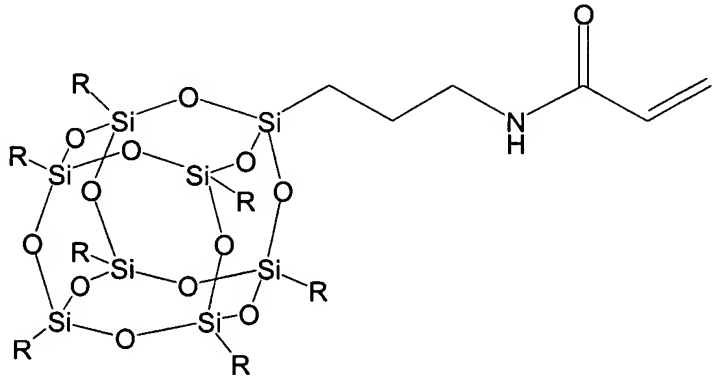
59. (previously presented) A radiation curable ink composition comprising at least one initiator and at least one polyhedral oligomeric silsesquioxane (POSS) characterized in that said silsesquioxane is selected from the group consisting of:



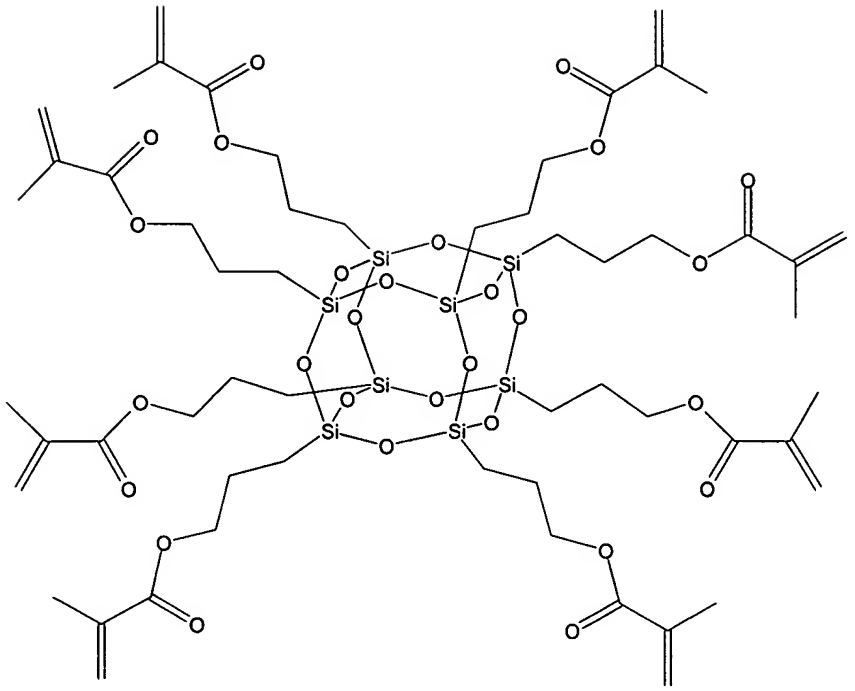
wherein R = cyclohexyl, cyclopentyl or isobutyl;



wherein R = cyclohexyl, cyclopentyl, ethyl, isobutyl, isooctyl or phenyl;



wherein R = cyclohexyl, cyclopentyl or isobutyl;



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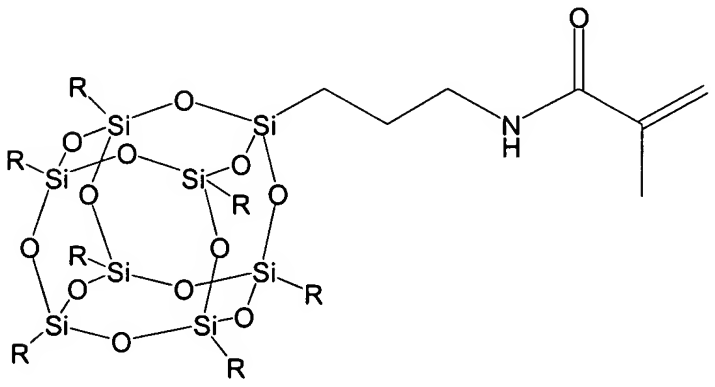
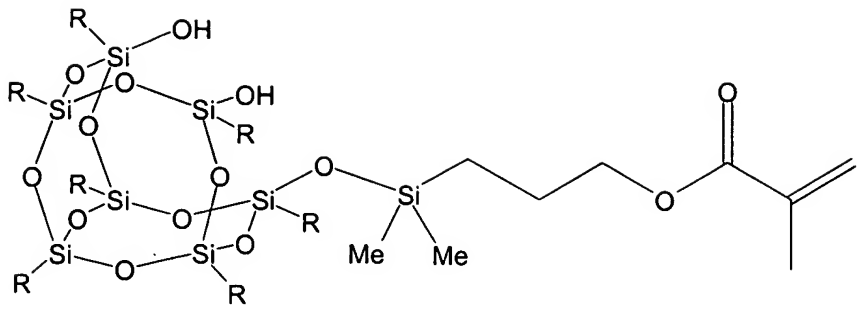
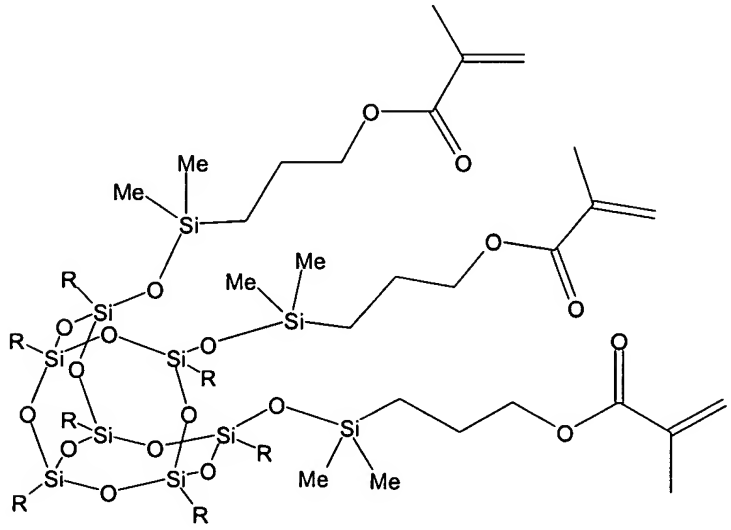


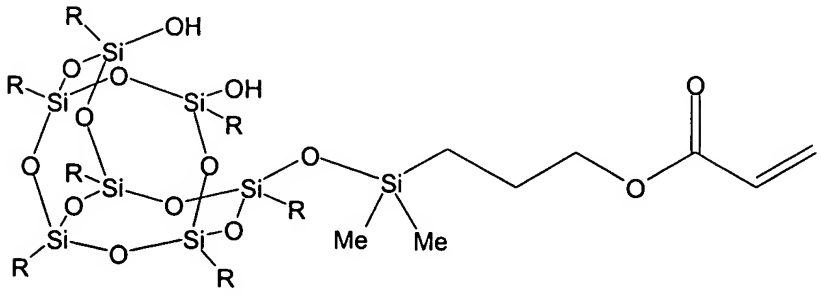
wherein R = cyclohexyl, cyclopentyl, ethyl, isobutyl, isooctyl or phenyl;



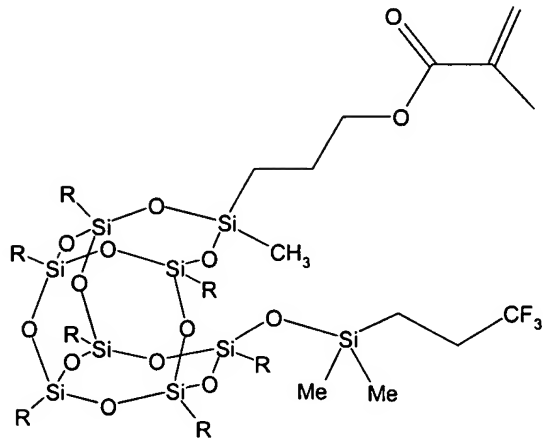
wherein R = cyclohexyl, cyclopentyl or isobutyl;



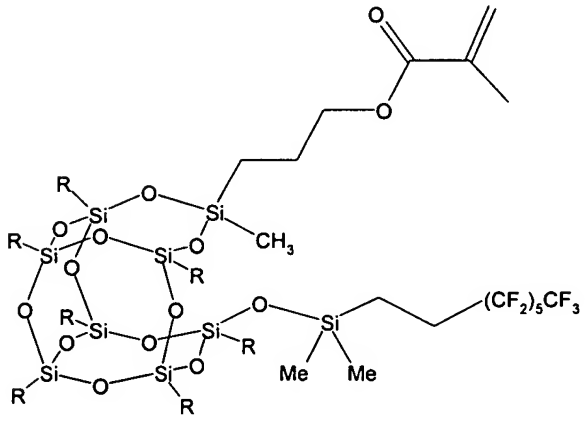
wherein R = cyclohexyl or isobutyl;



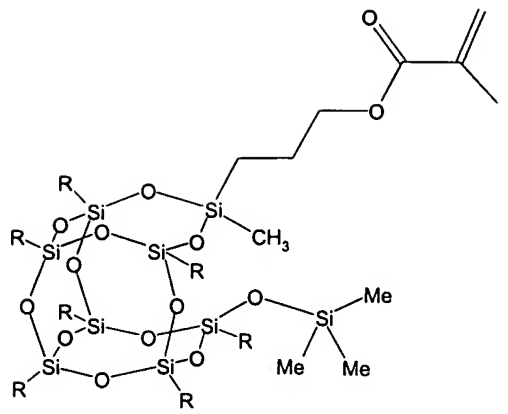
wherein R = cyclohexyl, cyclopentyl or isobutyl;



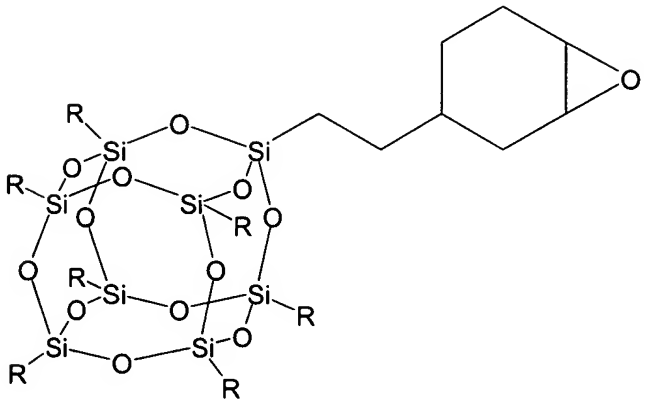
wherein R = cyclopentyl;



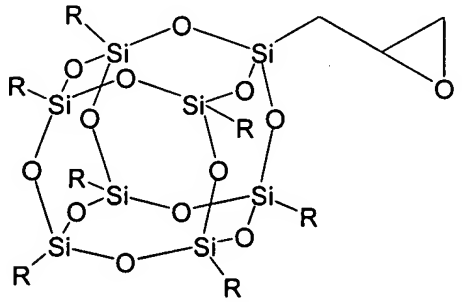
wherein R = cyclopentyl;



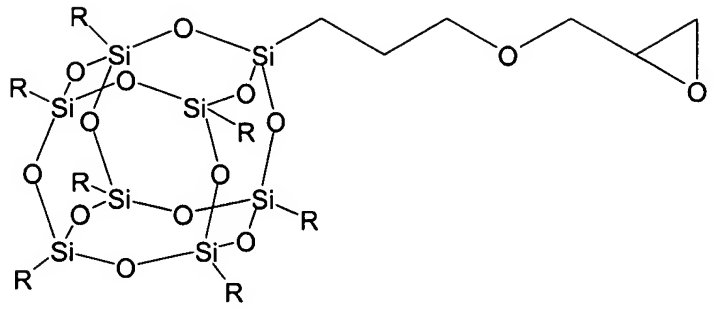
wherein R = cyclopentyl or isobutyl;



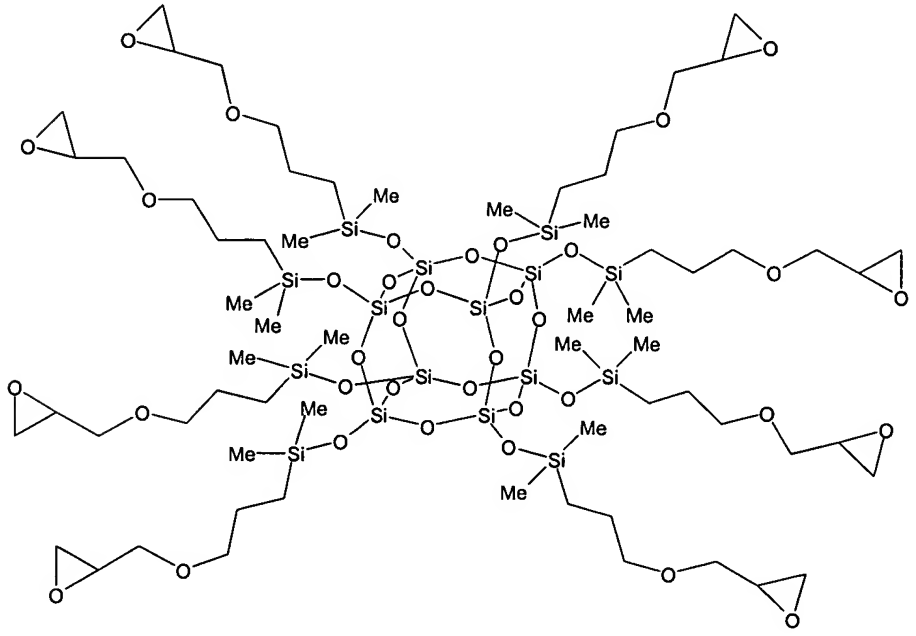
wherein R = cyclohexyl, cyclopentyl or isobutyl;



wherein R = cyclohexyl, cyclopentyl or isobutyl;



wherein R = cyclohexyl, cyclopentyl, ethyl, isobutyl, isooctyl or phenyl;



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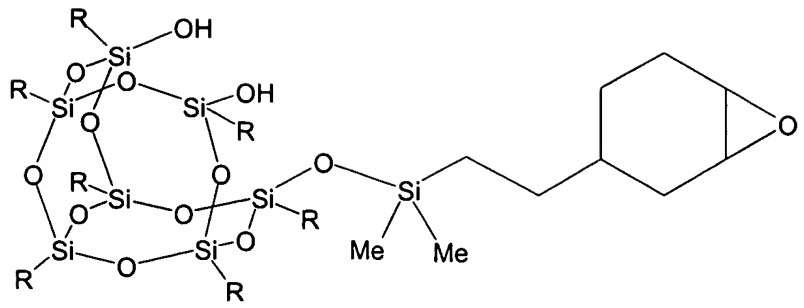
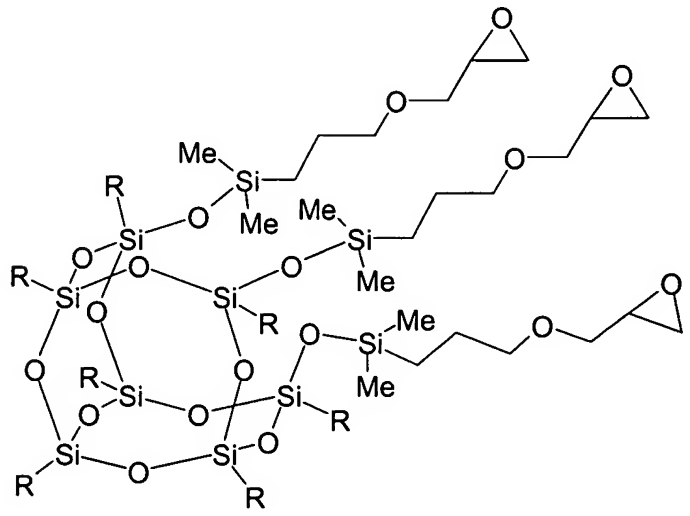
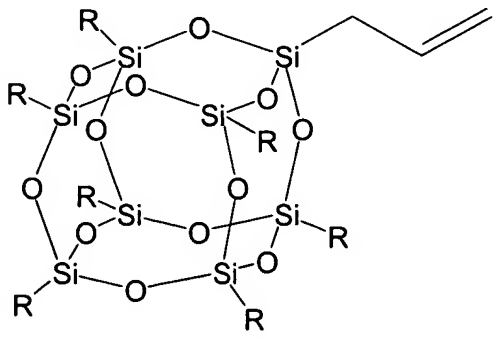


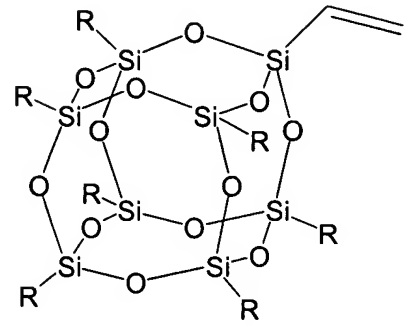
wherein R = isobutyl;



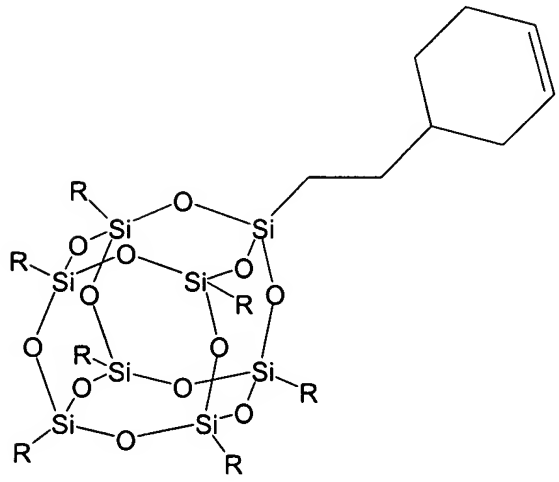
wherein R = cyclohexyl, cyclopentyl, ethyl, isobutyl;



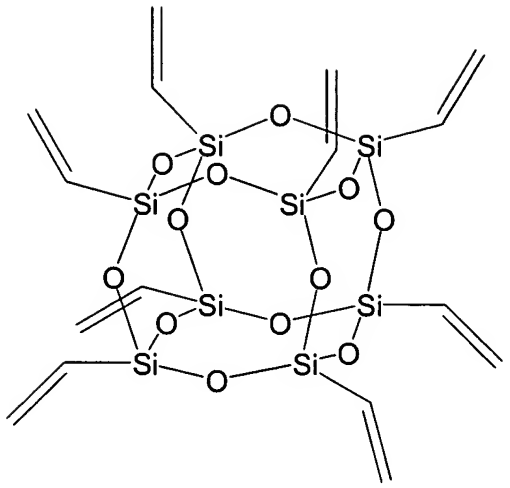
wherein R = cyclohexyl, cyclopentyl, isobutyl;



wherein R = cyclohexyl, cyclopentyl, isobutyl;



wherein R = cyclopentyl;



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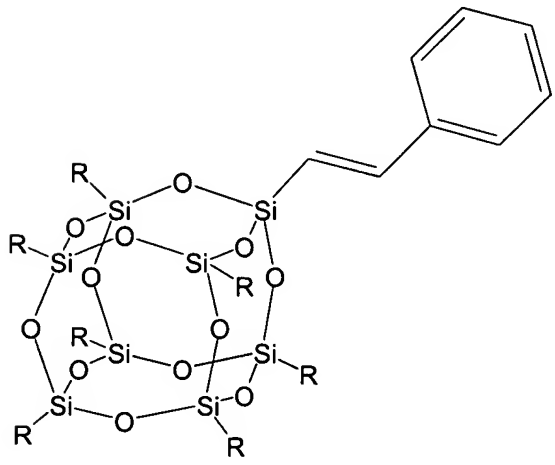
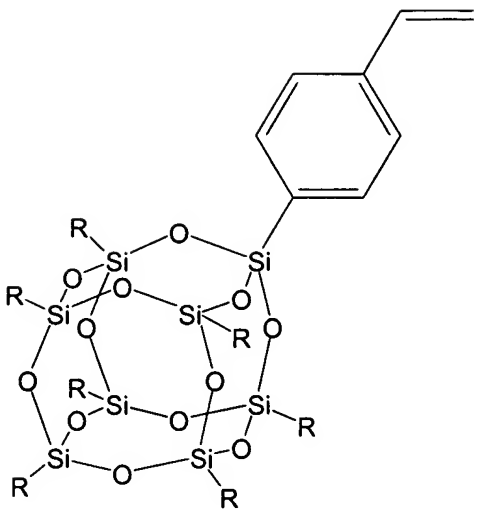


wherein R = isobutyl; and



wherein R = cyclohexyl, cyclopentyl, isobutyl.